

AMENDMENTS TO THE CLAIMS

Claims 1-29 (Cancelled)

30.(New) A method for producing a nitride semiconductor element having at least a conductive layer, a first terminal, a nitride semiconductor with a light-emitting layer, and a second terminal, from a supporting substrate successively, comprising:

a growing step for growing the nitride semiconductor having at least a second conductive type nitride semiconductor layer, the light-emitting layer, and a first conductive type nitride semiconductor layer, on a different material substrate; subsequently,

a attaching step for attaching the supporting substrate to the first conductive type nitride semiconductor layer side of the nitride semiconductor with interposing between them the first terminal; and subsequently,

a different-material-substrate-eliminating step for eliminating the different material substrate so as to expose the second conductive type nitride semiconductor layer.

31.(New) The method according to claim 30, wherein the conductive layer is formed by a eutectic junction in the attaching step.

32.(New) The method according to claim 30, wherein the attaching step is performed by thermocompression bonding.

33.(New) The method according to claim 30, wherein the different-material-substrate-eliminating step is performed by laser irradiation, polishing, or chemical polishing.

34. (New) The method according to claim 30, wherein the light-emitting layer has a quantum well structure, which includes at least a well layer of $\text{Al}_a\text{In}_b\text{Ga}_{1-a-b}\text{N}$ ($0 < a < 1$, $0 < b < 1$, $a + b < 1$) and a barrier layer of $\text{Al}_c\text{In}_d\text{Ga}_{1-c-d}\text{N}$ ($0 < c < 1$, $0 < d < 1$, $c + d < 1$).

35. (New) The method according to claim 34, wherein,
the light-emitting layer has a quantum well structure, which includes at least a well layer of $\text{Al}_a\text{In}_b\text{Ga}_{1-a-b}\text{N}$ ($0 < a < 1$, $0 < b < 1$, $a + b < 1$) and a barrier layer of $\text{Al}_c\text{In}_d\text{Ga}_{1-c-d}\text{N}$ ($0 < c < 1$, $0 < d < 1$, $c + d < 1$), and
the first conductive type semiconductor layer is disposed in one side of the principal plane of the light-emitting layer,
the second conductive type semiconductor layer, which includes Al, is disposed in another side of the principal plane of the light-emitting layer.

36. (New) The method according to claim 30, further comprising:
an asperity-portion-forming step for forming an asperity portion on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

37. (New) The method according to claim 30, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

38. (New) The method according to claim 37, further comprising:
a step for forming an asperity portion on the second insulating protect layer.

39.(New) The method according to claim 37, wherein the refractive index of the second insulating protect layer is more than or equal to 1 and not more than 2.5.

40.(New) The method according to claim 30, further comprising:
a step for breaking the nitride semiconductor into chips by etching the exposed surface of the nitride semiconductor after the different-material-substrate-eliminating step.

41.(New) A method for producing a nitride semiconductor element having at least a conductive layer, a first terminal, a nitride semiconductor with a light-emitting layer, and a second terminal, from a supporting substrate successively, comprising:

a growing step for growing the nitride semiconductor having at least an undoped GaN layer, a second conductive type nitride semiconductor layer, the light-emitting layer, and a first conductive type nitride semiconductor layer on a different material substrate; subsequently,

a attaching step for attaching the supporting substrate to the first conductive type nitride semiconductor layer side of the nitride semiconductor with interposing the first terminal between them; and subsequently,

an exposing step for exposing the second conductive type nitride semiconductor layer by eliminating the different material substrate and the undoped GaN.

42.(New) The method according to claim 41, wherein the nitride semiconductor layers except the light-emitting layer in the nitride semiconductor have a band gap larger than the light-emission band gap.

43.(New) The method according to claim 31, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

44.(New) The method according to claim 32, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

45.(New) The method according to claim 33, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

46.(New) The method according to claim 34, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

47.(New) The method according to claim 35, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.

48.(New) The method according to claim 36, further comprising:
a step for forming a second insulating protect layer on the exposed surface of the nitride semiconductor, which is the second type conductive nitride semiconductor layer, after the different-material-substrate-eliminating step.